

WHAT IS CLAIMED IS:

1. A compressor, in particular for air-conditioning systems in motor vehicles, having a safety device for limiting high pressure, wherein the safety device is hermetically sealed up until the first response, and the system pressure drops slowly after that.
2. The compressor as recited in claim 1, wherein the safety device includes a combination of a rupture disk 3 and a pressure relief valve 13.
3. The compressor as recited in claim 2, wherein the rupture disk 3 and the pressure relief valve 13 are arranged in series.
4. The compressor as recited in claim 3, wherein the rupture disk 3 is pressurized on one side with the high pressure 5 from the exhaust chamber of the compressor and, on the other side, with atmospheric pressure 15.
5. The compressor as recited in one of the preceding claims, wherein, viewed from the high-pressure side, the pressure relief valve 13 is configured downstream of the rupture disk 3.
6. The compressor as recited in one of the preceding claims, wherein the pressure relief valve 13 is designed for a lower opening pressure than the bursting pressure of the rupture disk 3.
7. The compressor as recited in one of the preceding claims, wherein the pressure relief valve 13 vents refrigerant to the atmosphere.
8. The compressor as recited in one of the preceding claims, wherein the pressure relief valve 13 has a defined leakage, while the rupture disk 3 is

hermetically sealed.

9. The compressor as recited in claim 8,
wherein, because of the defined leakage, no pressure is able to build up in the space
between the rupture disk 3 and the valve 13, as long as the rupture disk 3 is intact.
10. The compressor as recited in claim 8 or 9,
wherein the defined leakage is able to be realized by a valve seat 19 or a valve piston 17
of porous material.
11. The compressor as recited in claim 8 or 9,
wherein the defined leakage is able to be realized by a bypass groove or a bypass bore at
the valve seat 19 or at the valve piston 17, or by a surface roughness or a surface
irregularity at the valve seat 19 or at the valve piston 17.
12. The compressor as recited in claim 8 or 9,
wherein the defined leakage is able to be realized by an elastomer seal at the valve seat
19 or at the valve piston 17, and by its permeability for the refrigerant.
13. The compressor as recited in one of the preceding claims,
wherein, in response to the pressure in the air-conditioning system dropping below the set
pressure, the residual refrigerant is slowly released through the leak via the pressure relief
valve 13.